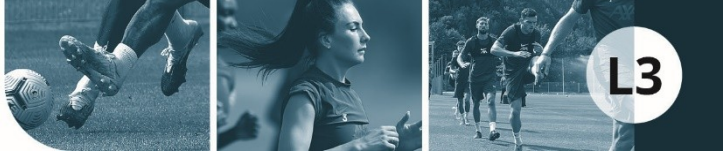
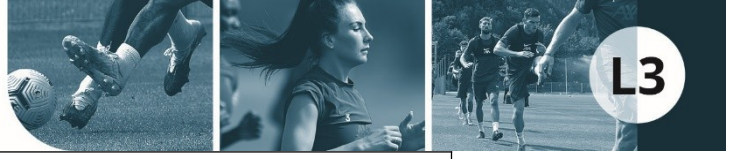


BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Qualifications in Sport
Unit number and title	**Unit 7: Personal Training and Programming**
Learning aim	A: Explore anatomy, physiology and biomechanics for personal training
Assignment title	Understanding systems and biomechanics
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	As a student actively involved in sport and looking to become involved in the fitness industry as a career option, you have been approached by a local health and fitness club to undertake a period of work placement focussing on the roles and requirements to become a successful Personal Trainer. The club want to provide you with a worthwhile work experience to help you to learn and understand both the theory and applied aspects of the role of a Personal Trainer and to enable you to gain some practical experience of personal training You first task is to educate the clubs members about the main body systems and the effect of biomechanics and kinesiology in personal training You have been asked to write a report summarising this information which will form part of the next centre created newsletter Good luck

Task 1	In your report for the health and fitness club you are required to focus on the anatomy physiology and interrelationships of each body system and the positive benefits of participating in exercise on the musculoskeletal system You must explain the structure and function of each system and then look at the different responses that the systems make when participating exercise Your report will show an understanding of the effects of acute and chronic exercise on the body systems. Your report should include how our endocrine system supports these improvements. Your report should consider the negative impacts of stress which can increase the risk of injury to the musculoskeletal



	system. Explore the effects and impact of overtraining on the endocrine system Include information of a synovial joint, the movements permitted at joints and how joints are kept stable including passive and active structures. Explore the different types of muscle and their muscle attachments, origins and their actions. Show your reader you have an understanding of the principles of muscle contraction including the all or none law and stretch reflex. Your report should offer examples of weight bearing and non-weight bearing exercise, the reasons why it is necessary to maintain neural spine alignment and the ranges of movement permitted at the spine. Include "user friendly" information of the principles of biomechanics including the different planes of movement and the types of movement that occur in each and risks from taking part in exercise Communicate to your reader a clear understanding of the effect of exercise variables on biomechanics. Your report should include relevant diagrams and references Check with your tutor on appropriate presentation format and suggested word count

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria, you must show that you are able to:
A.P1	Explain the structures and functions of the cardiorespiratory, musculoskeletal, energy, nervous and endocrine systems for personal training.
A.P2	Explain the effect of exercise on the cardiorespiratory, musculoskeletal, energy and nervous systems.
A.P3	Explain biomechanics in personal training.
A.M1	Assess the interrelationships of the body systems to support participation in aerobic and anaerobic exercise
A.D1	Evaluate the positive and potential negative effects of exercise on the musculoskeletal, cardiorespiratory, energy, nervous and endocrine systems.
Checklist of evidence required	Report-including relevant diagrams references and appropriate format for inclusion in the centre newsletter
Other assessment materials attached to this brief	